

<http://www.epa.gov/glnpo/about.html>

Last updated on Tuesday, February 24, 2009

Great Lakes National Program Office

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Great Lakes National Program Office

The Great Lakes National Program Office oversees and helps all Great Lakes stakeholders* work together in an integrated, ecosystem approach to protect, maintain, and restore the chemical, biological, and physical integrity of the Great Lakes.

** (Federal, state, tribal, local, governments; non-government organizations; industry; and private citizens)*

USEPA's Great Lakes National Program Office (GLNPO), located in Chicago, Illinois, has a staff of 46 and a budget of almost \$15 million. GLNPO brings together Federal, state, tribal, local, and industry partners in an integrated, ecosystem approach to protect, maintain, and restore the chemical, biological, and physical integrity of the Great Lakes. The program monitors Lake ecosystem indicators; manages and provides public access to Great Lakes data; helps communities address contaminated sediments in their harbors; supports local protection and restoration of important habitats; promotes pollution prevention through activities and projects such as the Canada-U.S. Binational Toxics Strategy (BNS); and provides assistance for community-based Remedial Action Plans for Areas of Concern and for Lakewide Management Plans. Each year, GLNPO uses its funding to assist Great Lakes partners in these areas through grants, interagency agreements, and contracts.

GLNPO was established in November 1977 by combining the EPA Region 5 Office of Great Lakes Coordinator (policy) with the Great Lakes Surveillance Branch of the EPA Region 5 Surveillance and Analysis Division (science). The Great Lakes Surveillance Branch had been established in September 1974 at which time the EPA Great Lakes open lake monitoring program was established with the acquisition of the 122 ft. research ship, *R/V Roger R. Simons* from the U.S. Navy.

GLNPO was EPA's first geographically-based (the entire Great Lakes basin) rather than media-based (air, water, etc.) office. It is responsible for coordinating federal activities with those of other Great lakes governmental and non-governmental stakeholders to restore and protect the Great Lakes. Thus, its responsibilities cut across the jurisdictions of 3 EPA Regions (2, 3, and 5), 8 States (Minnesota, Wisconsin, Illinois, Indiana, Michigan, Ohio, Pennsylvania, and New York), 2 Canadian Provinces (Ontario and Quebec), 33 U.S. Tribes, 64 Canadian First Nations, 83 U.S. Counties, and thousands of municipalities.

The Boundary Waters Treaty of 1909 and the 1987 Great Lakes Water Quality Agreement (GLWQA) with Canada provide the basis for our international efforts to manage this shared

GLNPO Links

- Great Lakes Strategy 2002
- ~~The Great Lakes Water Quality Agreement~~
 - United States Response to 11th Biennial Report
- Our Progress Report to Congress
 - past Progress Report to Congress
- Our previous Great Lakes Five Year Strategy
- Great Lakes Program Funding
- Summaries of our funded projects:
- GLNPO staff directory and contact listing
- GLNPO provides funding for projects to protect the Great Lakes
- Project Requirements
- Glossary of Environmental Terms
- Traveling to our office? Get directions from our airports.

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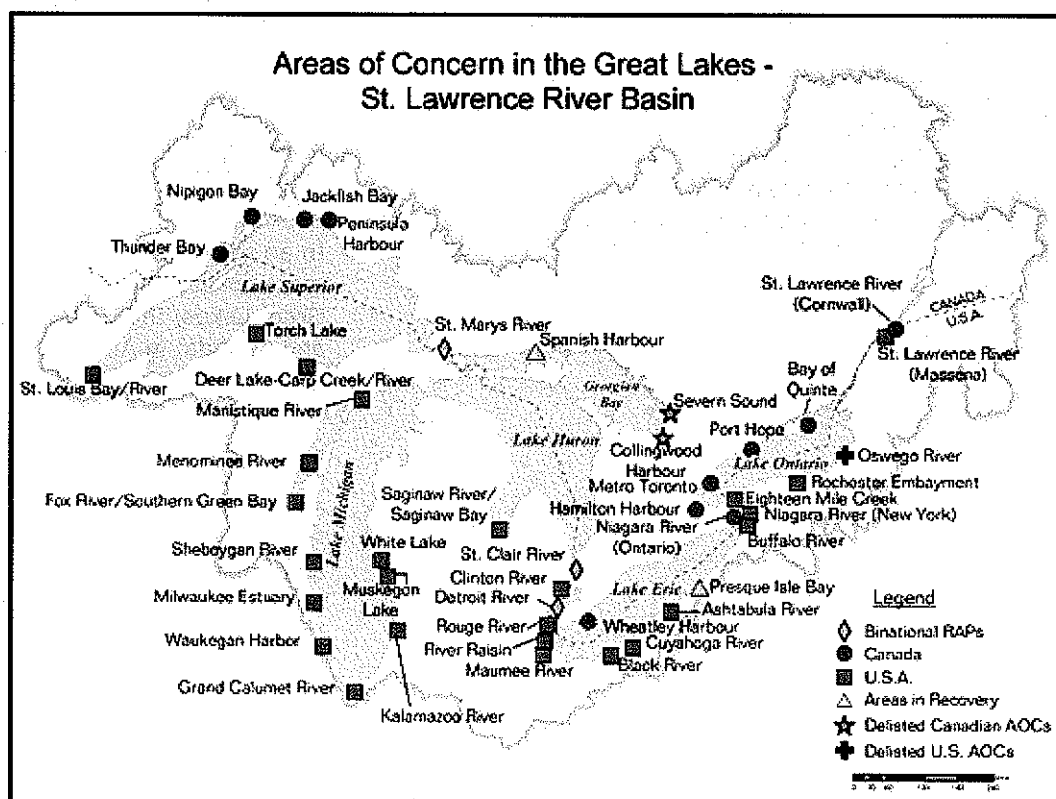
resource. Additional responsibilities are defined in Section 118 of the Clean Water Act, Section 112 of the Clean Air Act Amendments, and the Great Lakes Critical Programs Act of 1990. The Great Lakes 5-Year Strategy, developed jointly by EPA and its multi-state, multi-Agency partners and built on the foundation of the GLWQA, provides the agenda for Great Lakes ecosystem management: reducing toxic substances; protecting and restoring important habitats; and protecting human/ecosystem species health.



Great Lakes Area of Concerns

You are here: [EPA Home](#) [Great Lakes](#) > Areas of Concern (AOC)

Areas of Concerns (AOCs)



Click on each dot to see information about **United States Areas of Concern**

Forty-three AOCs have been identified: 26 located entirely within the United States; 12 located wholly within Canada; and five that are shared by both countries. Two Canadian AOCs have been delisted and one U.S. AOC has been delisted leaving 30 AOCs remaining on the U.S. side of the border.

RAPs are being developed for each of these AOCs to address impairments to any one of 14 beneficial uses (e.g., restrictions on fish and wildlife consumption, dredging activities, or drinking water consumption) associated with these areas. USEPA has assigned [RAP Liaisons](#) for AOCs. [Sediments](#) have been identified as serious problems in many AOCs. [AOC Principles and Guidelines](#) have been finalized for formally delisting these areas as beneficial uses are restored.

- [Ashtabula River, Ohio](#)
- [Black River, Ohio](#)
- [Buffalo River, New York](#)
- [Clinton River, Michigan](#)
- [Cuyahoga River, Ohio](#)
- [Deer Lake, Michigan](#)
- [Detroit River, Michigan](#)

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About AOCs

(About PDF)

- Information about **Binational and Canadian Areas of Concern** is maintained by Environment Canada

[EXIT Disclaimer](#)

- What is an AOC and a RAP? [EXIT Disclaimer](#)
- AOC/RAP Resources

[EXIT Disclaimer](#)

Oswego AOC Delisted

Oswego River Area of Concern Becomes First U.S. AOC to be Delisted!

In an effort to clean up the most polluted areas in the Great Lakes, the United States and Canada, in Annex 2 of the Great Lakes Water Quality Agreement, committed to cooperate with State and Provincial Governments to ensure that Remedial Action Plans (RAPs) are developed and implemented for all designated Areas of Concern (AOCs) in the Great Lakes basin.

- [EighteenMile Creek, New York](#)
- [Grand Calumet River, Indiana](#)
- [Kalamazoo River, Michigan](#)
- [Lower Green Bay and Fox River, Wisconsin](#)
- [Manistique River, Michigan](#)
- [Maumee River, Ohio](#)
- [Menominee River, Wisconsin](#)
- [Milwaukee Estuary, Wisconsin](#)
- [Muskegon Lake, Michigan](#)
- [Niagara River, New York](#)
- [Oswego River/Harbor, New York](#)
- [Presque Isle Bay, Pennsylvania](#)
- [River Raisin, Michigan](#)
- [Rochester Embayment, New York](#)
- [Rouge River, Michigan](#)
- [Saginaw River and Bay, Michigan](#)
- [Sheboygan River, Wisconsin](#)
- [St. Clair River, Michigan](#)
- [St. Lawrence River at Massena, New York](#)
- [St. Louis River and Bay, Minnesota and Wisconsin](#)
- [St. Marys River, Michigan](#)
- [Torch Lake, Michigan](#)
- [Waukegan Harbor, Illinois](#)
- [White Lake, Michigan](#)



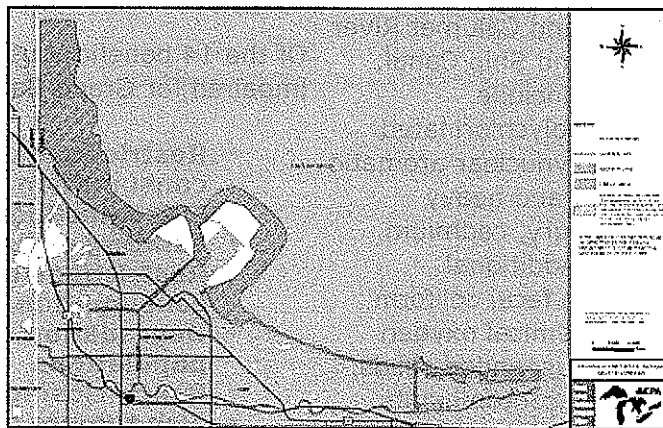
Great Lakes Area of Concerns

You are here: [EPA Home](#) [Great Lakes](#) > [Areas of Concern \(AOCs\)](#): Grand Calumet River

Grand Calumet River Area of Concern

[Background](#)[Beneficial Use](#)[Impairments](#)[Delisting Targets](#)[RAP Development and](#)[Status](#)[Significant RAP Milestones](#)[RAP Implementation](#)[RAP-Related Publications](#)[Community Involvement](#)[Partners and Stakeholders](#)[Contacts](#)[EXIT Disclaimer](#)

NOTE: Most links on this page are pointers to other hosts and locations in the Internet. This information is provided as a service; however the U.S. Environmental Protection Agency does not endorse, approve or otherwise support these sites.

**Grand Calumet River AOC Boundary Map**

(PDF 564kb, 1 page)

(click on map to view in separate window)[Grand Calumet River Shape File](#)

You will need Adobe Acrobat Reader, available as a free download, to view some of the files on this page. See [EPA's PDF](#) page to learn more about PDF, and for a link to the free Acrobat Reader.

Background ▲

The Grand Calumet River, originating in the east end of Gary, Indiana, flows 13 miles (21 km) through the heavily industrialized cities of Gary, East Chicago, and Hammond. The majority of the river's flow drains into [Lake Michigan](#) [EXIT Disclaimer](#) via the Indiana Harbor and Ship Canal, sending about one billion gallons of water into the lake per day. The [Area of Concern](#) (AOC) begins 15 miles (24 km) south of downtown Chicago and includes the east branch of the river, a small segment of the west branch and the



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Indiana Harbor and Ship Canal. Today, 90% of the river's flow originates as municipal and industrial effluent, cooling and process water and storm water overflows. Although discharges have been reduced, a number of contaminants continue to impair the AOC.

Grand Calumet River

Beneficial Use Impairments ▲

The largest extent of the impairment to the AOC come from the legacy pollutants found in the sediments at the bottom of the Grand Calumet River and Indiana Harbor and Ship Canal. Problems in the AOC include contamination from polychlorinated biphenyls (PCBs), polynuclear aromatic hydrocarbons (PAHs) and heavy metals, such as mercury, cadmium, chromium and lead. Additional problems include high fecal coliform bacteria levels, biochemical oxygen demand (BOD) and suspended solids, oil and grease. These contaminants originated from both point and nonpoint sources. Nonpoint sources include:

- Contaminated Sediment. The Grand Calumet River and Indiana Harbor and Canal contain 5 to 10 million cubic yards (3.9 to 7.7 million cubic meters) of contaminated sediment up to 20 feet (6 m) deep. Contaminants include toxic compounds (e.g., PAHs, PCBs and heavy metals) and conventional pollutants (e.g., phosphorus, nitrogen, iron, magnesium, volatile solids, oil and grease).
- Industrial Waste Site Runoff. Stormwater runoff and leachate from 11 of 38 waste disposal and storage sites in the AOC, located within .2 mi (.3 km) of the river, are degrading AOC water quality. Contaminants include oil, heavy metals, arsenic, PCBs, PAHs and lead.
- CERCLA Sites. There are 52 sites in the AOC listed in the federal Comprehensive Environmental Response Compensation and Liability System (CERCLA). Five of these sites are Superfund sites on the National Priorities List (NPL).
- Hazardous Waste Sites under RCRA. There are 423 hazardous waste sites in the AOC regulated under the Resource Conservation and Recovery Act (RCRA), such as landfills or surface impoundments, where hazardous waste is disposed. Twenty-two of these sites are treatment, storage and disposal facilities.
- Underground Storage Tanks (USTs). There are more than 460 underground storage tanks in the AOC. More than 150 leaking tank reports have been filed for the Lake County section of the AOC since mid-1987.
- Atmospheric Deposition. Atmospheric deposition of toxic substances from fossil fuel burning, waste incineration and evaporation enter the AOC through direct contact with water, surface water runoff and leaching of accumulated materials deposited on land. Toxins from this source include dioxins, PCBs, insecticides and heavy metals.
- Urban Runoff. Rain water passing over paved urban areas washes grease, oil and toxic organics such as PCBs and PAHs into AOC surface waters.
- Contaminated Groundwater. Groundwater contaminated with organic compounds, heavy metals and petroleum products contaminates AOC surface waters. The United

Grand Calumet River Beneficial Use Impairments

Of the 14 beneficial uses EXIT Disclaimer, these are impaired for Grand Calumet River:

- **Restrictions on fish and wildlife consumption**
- **Eutrophication or undesirable algae**
- **Tainting of fish and wildlife flavor**
- **Restrictions on drinking water consumption, or taste and odor**
- **Degradation of fish and wildlife populations**
- **Beach closings**
- **Fish tumors or other deformities**
- **Degradation of aesthetics**
- **Bird or animal deformities or reproduction problems**
- **Added costs to agriculture or industry**
- **Degradation of benthos**
- **Degradation of phytoplankton and zooplankton populations**
- **Restriction on dredging activities**
- **Loss of fish and wildlife habitat**

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States Environmental Protection Agency (U.S. EPA) estimates that at least 16.8 million gallons (63.6 million liters) of oil float on top of groundwater beneath the AOC.

Point sources of contaminants include:

- **Industrial and Municipal Wastewater Discharges.** Three steel manufacturers contribute 90% of industrial point source discharges to the AOC. One chemical manufacturer discharges into the AOC. Permitted discharges include arsenic, cadmium, cyanide, copper, chromium, lead and mercury. Three municipal treatment works (Gary, Hammond and East Chicago Sanitary Districts) discharge treated domestic and industrial wastewater into the AOC.
- **Combined Sewer Overflows (CSOs).** Fifteen CSOs contribute untreated municipal waste, including conventional and toxic pollutants, to the AOC. Annually, CSO outfalls discharge an estimated 11 billion gallons (41.6 billion liters) of raw wastewater into the harbor and river. Approximately 57% of the annual CSO volume is discharged within eight miles (12.9 km) of Lake Michigan, resulting in nearshore fecal coliform contamination.

Historically, the Grand Calumet River supported highly diverse, globally unique fish and wildlife communities. Today, remnants of this diversity near the AOC are found in the Gary Works natural Area, Gary Enterprise Zone, Clarke junction West, Clarke and Pine General Refractories Addition, Clarke Junction East, Clarke and Pine Dune and Swale, Lake Shore Prairie, Brunswick Central Savanna, Penn Central, Ivanhoe South, Toleston Woods, Beemsterboer, Expolyer Pipeline Triangle, Toleston Ridges, Cline Avenue Dune and Swale, Roxanna Marsh, Grand Calumet River Tern Site, DuPont, George Lake Woods, Migrant Bird Trap. These areas contain tracks of dune and swale topography and associated rare plant and animals species, such as Franklin's ground squirrel, Blanding's turtle, the glass lizard and the black crowned night heron, among others. The problems mentioned above, however, have impaired many desired uses of the AOC, including the 14 beneficial uses listed in the table above.

For further information and details on all of the BUIs, see a corresponding Grand Calumet River Beneficial Use Impairments (PDF 151Kb, 15 pages) document and the Remedial Action Plan (RAP) documents listed in the Significant RAP Milestones section below.

Delisting Targets ▲

The Grand Calumet River Area of Concern has developed Indicators for the Grand Calumet River/Indiana Harbor Ship Canal and Nearshore Lake Michigan Remedial Action Plan. The indicators specific to each BUI are described in the BUI document linked above; the overall objectives of the document are described below:

1. **General Objective**
Future development of the (AOC) should protect and restore the beneficial uses described in Annex 2 of the Great Lakes Water Quality Agreement.
2. **Aquatic Community Objectives**
The AOC should sustain diverse, healthy, reproducing and self-regulating warm-water aquatic communities closely representative of conditions in southern Lake Michigan.
3. **Habitat Objectives**
The ecosystem in the AOC should support a diverse, healthy, reproducing and self-



Canoe and industrial area near the Grand Calumet River

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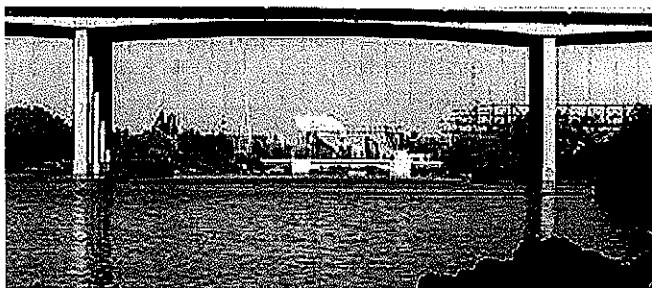
regulating wildlife community closely representative of conditions in southern Lake Michigan.

4. Sustainable Development Objective

The waters of the AOC should be a community resource and should provide healthy recreation activities, in an aesthetically pleasing environment. The land, air, and water use in the AOC should not degrade ecosystem quality. Development already has severely affected the ecosystem. Future development in the AOC, or in the Lake Michigan watershed, should not impair the natural capacity of the area's ecosystem to sustain its natural identity and ecological functions, or its ability to provide future generations with a healthy ecosystem. Future development plans for the AOC should preserve the natural ecosystem and its biodiversity.

RAP Development and Status ▲

The Stage 2.5 Remedial Action Plan is under revision for submittal to the International Joint Commission. Stage 2.5 extends the Stage 2 ecosystem approach and reviews how each regulatory, voluntary and enforcement activity in the AOC helps restore beneficial uses. The document begins to link these activities to environmental stressors. With the CARE committee's assistance, the State expects to finish the Stage 2.5. By tracking the myriad of activities that help restore beneficial uses, the CARE committee and State have begun to track Stage 3 progress, implementation.



View under bridge at industrial area on the Grand Calumet River

The State submitted a Stage 2 document to the International Joint Commission in December 1997. Stage 2 links physical, biological and chemical stressors to each use impairment. Due to extensive use impairments and the complex nature of the ecosystem activities required to restore those uses, the RAP process divided Stage Two into smaller, more manageable components for planning purposes. It also makes integration of each new component an important concern as the planning process proceeds.

The Remedial Action Plan (RAP) process produced a Stage One document in January 1991.

Significant RAP Milestones ▲

- The Stage 2.5 RAP is under revision for submittal to the IJC. The CARE committee has proposed a suite of short-term and long-term environmental indicators and endpoints to delist each beneficial use.
- The Stage Two document was submitted to the IJC in December of 1997.
- The Remedial Action Plan (RAP) process produced a Stage One document in January 1991.
- The first success of the RAP was the opening of the first Regional Office in Gary, Indiana in 1990. Since then, the Northwest Regional Office has grown to include more than 20 staff people, including air, land and water quality inspectors, RAP and Lakewide Management Plan (LaMP) coordinators and a Director and Deputy Director of the Office.

RAP Implementation ▲**Recent Progress and Achievements**

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On August 23, 2004, the Grand Calumet River Natural Resources Damages Assessment (NRDA) settlement [\[EXIT Disclaimer\]](#) (\$56 million) was announced. The NRDA identified the nine responsible parties (Atlantic Richfield Company, BP Products North America, Inc., E.I. Du Pont De Nemours and Company, Exxon Mobil Cooperation, GATX Corporation, Georgia Pacific Corporation, ISPAT-Inland, and United States Steel Corporation), and Bankruptcy Court settlement with the former LTV Steel. The NRDA has calculated the monetary cost of restoring injuries to the Grand Calumet River that resulted from releases of hazardous substances into the water column. The NRDA Trustees evaluated the natural functions or services, which have been removed from the watershed to calculate the \$56 million settlement.

The Beaches Environmental Assessment and Coastal Health Act Of 2000 (BEACH Act) was implemented during the summer of 2004 and 2005. The BEACH Act funded the development of Indiana's Beach program. Through Indiana's Beach Program IDEM provided funding to the following AOC communities: City of Hammond, East Chicago and Gary. The communities used the dollars to increase the frequency of E. coli sampling at their beaches from two times a week to seven days a week. The data from summer 2005, 2004, 2003, 2002 and 2001 will be used to refine the Beneficial Use Impairment for Beach Closures (BUI# 10). In 2003, IDEM's RAP Technical Team Recommended to the CARE Committee that a 10% closure rate (eight beach closures per summer) for three years consecutive years is a satisfactory endpoint for Beach Closures.

On October 2004, the U.S. Department of Transportation (DOT) and the Federal Aviation Administration (FAA) released the Final Environmental Impact Statement for the Master Plan Development Including Runway Safety Area Enhancement/Extension of Runway 12-30 and Other Improvements for the Gary/Chicago International Airport. IDEM's Office of Air Quality, Office of Land Quality, Office of Water Quality, and Alex da Silva and Malini Goel of IDEM's Northwest Regional Office, provided comments to the DOT and the FAA on the above document. IDEM, along with a diversity group of stakeholders including, but not limited to the Save the Dunes Conservation Fund, Nature Conservancy, Shirley Hienze Trust and other state and local entities also provided comments on this document.

Other Achievements:

- U.S. Steel Gary Works has completed the dredging of five (5) river miles on the East Branch of the Grand Calumet River.
- On July 20, 2001, the City of Hammond acquired the north basin of George Lake. The City of Hammond will consult with the George Lake Watershed-Environmental Advisory Committee on how to restore, preserve and enhance George Lake.
- IDEM is working with the RAP technical workgroup, USEPA and GLNPO to develop the AOC delisting guide document. Work began in June 2001.
- IDEM completes technical work for the Total Maximum Daily Load (TMDL) assessment, May 2001.
- IDEM and The U.S. Fish and Wildlife Service release the Sediment Injury Report for the Grand Calumet River as part of the Natural Resource Damage Assessment (NRDA), April 2001.
- IDEM and Illinois-Indiana Sea Grant sponsor: The First Biannual Grand Calumet River: Science in the Area of Concern Symposium at Indiana University Northwest, March 30, 2001.
- ISPAT-Inland performed a demonstration of a hydraulic dredge (Eddy Pump) in the Indiana Harbor Ship Canal, September 2000.
- Permit for the Passive Dewatering Facility for U.S. Steel Dredging project is approved by IDEM and EPA.
- Wolf Lake Bi-State Vision Document completed.
- IDEM establishes 14 Technical Teams to develop indicators for the RAP.

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- Costal Zone Management Funding is being sought for the Southern Lake Michigan. The area includes the AOC.
- IDEM is working with USEPA / GLNPO in developing the Lake Michigan Monitoring Coordinating Council.
- IDEM developed a RAP web page for the Grand Calumet River Citizens Advisory for the Environment (CARE).
- The City of Hammond has completed the Youth Golf Course on the south basin of George Lake.
- The ADID project is complete.

Current Projects and Outlook

The Stage Two document currently contains an ecosystem approach for restoration of 14 impaired uses. The document uses a matrix system to prioritize restoration projects. Current Priorities include:

- Continue the Natural Resources Damages Assessment.
- Complete year 2 of the 3-year Total Maximum Daily Load for the River and Canal.
- Complete design of the proposed confined disposal facility that will hold dredged sediments from the Canal's Federal Navigation Channel.



Scenic view of the Grand Calumet River

Being in 2004, IDEM intensified its project tracking efforts across the AOC. The purpose of this update was to provide a snapshot of what is currently occurring within the boundaries of the Grand Calumet River Area of Concern (AOC). A detailed summary can be found in the 2.5 Remedial Action Plan Update (Update). The Update includes a new database that was developed as a tool to track the changes that are ongoing in the AOC. The database will also allow for rapid dissemination of request letter and pinpoint those projects that have not seen an activity. The database will not only allow IDEM and interested stakeholders to remain current on project details (project manager, responsible party, contact information, relationship to beneficial use impairments, and the development of project timelines). The database is a policy tool. The database can be used to provide the Citizens Advisory for the Remediation of the Environment (CARE) Committee, IDEM administrative staff and the public with information about the projects that: have concluded; are ongoing: along with the last date, any activity has occurred with a specific project.

Indicator Information

Indicator development for the Grand Cal RAP was performed via literature search and result in a draft indicator document. Searching the literature did not result in implement-able indicators for the Grand Calumet River Area of Concern. IDEM could not implement the indicators as described in the RAP document because of the science was not completely available, and for the lack of funding. These special indicators would require the development of a new Remedial Action Plan Indicator Survey Section.

It is the responsibility of the RAP Coordinator to write grant applications to secure the resources needed to develop indicators. Funding has been secured to develop indicators for two of the fourteen BUIs. The United States Environmental Protection Agency has funded a grant submitted by Alex da Silva and Malini Goel, titled "Setting Delisting Targets for the Grand Calumet River AOC" Grant # GL-96566001-0. The grant will develop indicators for Beneficial Use Impairments #3 - Degradation of Fish and Wildlife Population and #14 Loss of

REFERENCE 124 Page 11**Fish and Wildlife Habitat.**

After the grant was awarded, the CARE Habitat Subcommittee met to develop the deliverables. Additional meetings are required by the CARE Habitat Subcommittee to refine the contractor tasks. Since, funding is limited, the CARE Habitat Subcommittee is interested in developing a streamline data (plant or amphibian, specific locations vs. random sampling, and determine how the data will be analyzed) strategy. Subsequently, a contractor will be hired to begin collecting data during 2005 and 2006.

The CARE Committee recommended that IDEM perform a GIS analysis of each of the indicators. The GIS analysis is a result of the committee's desire to refine causal-impairment relationship for each of the BUIs. Alex da Silva stated that he would coordinate with Kevin Miller (IDEM's Office of Land Quality) to perform this task. Alex da Silva projects that this task will be completed by the March 2006, CARE Committee meeting. CARE Workgroup meetings during the months of January and February will be needed to refine this product.

Water Quality and Toxic Pollution Prevention

- The draft Water Quality Component of Stage Two is being finalized in response to public comments. Several of its provisions are already being implemented through indirect methods, although direct resources for implementation have been limited.
- The RAP process has developed and obtained funds for a Toxic Pollution Prevention (TPP) Program on the waterway through a highly participatory, public process. The Gary, Hammond and East Chicago Sanitary Districts (River Districts) have formally adopted the RAP's Common Policy on Toxic Pollution Prevention.
- The RAP process has involved IDEM's pollution prevention staff, local industry and the general public in implementing a Household Hazardous Waste Collection Project in the AOC. Collections began in April 1994. Local educators have helped IDEM develop an Enviromobile which stops at area schools to educate school children about ways to prevent pollution while increasing their environmental consciousness.
- IDEM has funded a Steel Industry Pollution Prevention Project at Indiana University Northwest to involve local steel makers in minimizing waste.
- IDEM and U.S. EPA have funded a sediment cleanup and restoration alternatives document through the RAP process. This document is currently available to the public.

Reduction of Combined Sewer Overflows

- The Stage One RAP identified CSOs as a major cause of contamination of sediments. The RAP process has begun to address CSOs from the three municipal sanitary districts on the river. IDEM and the U.S. EPA Consent Decrees now require the sanitary districts to implement CSO Operational Plans and the state is including additional CSO provisions. IDEM is including additional CSO requirements in discharge permits as they are renewed in the basin pursuant to a state CSO Strategy.

Urban Nonpoint Source Pollution Reductions

- The RAP process has developed an Urban Nonpoint Source Pollution Control Program with the Lake County Soil and Water Conservation District, local officials and organizations, School of Public and Environmental Affairs and the Purdue School of Civil Engineering. This project demonstrated best management practices by cooperating with public and private landowners, and estimated the amounts of nonpoint source pollution and the costs of locally financing best management practices. A watershed land use study has been produced for the AOC and sub-area watershed management plans are being developed, starting on the west side of the AOC.
- The U.S. Geological Survey (USGS) is currently mapping fill sites, especially the sites where steel slag has historically been deposited. This fill map will have multiple uses

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for ecosystem restoration due to the high water table and the historical dune and swale topography of the AOC. It will be especially useful in identification of likely sources of groundwater and wetland contamination.

Biodiversity and Habitat Restoration

- A volunteer steward from the Friends of Gibson Woods, Mr. Paul Labus, co-chairs this Subcommittee with Mr. Jim Smith from IDEM's office of Emergency Response. Mr. Labus and Mr. Smith lead the Subcommittee in a group consensus process to finalize and prioritize habitat goals and objectives. They focus on preservation, protection and restoration of upland natural areas of high native biodiversity, as well as on improvement of aquatic habitat for beneficial species (especially native species).
- In a cooperative effort, IDEM, U.S. EPA, U.S. Fish and Wildlife Service and IDNR have obtained a new state Nature Preserve on the Grand Calumet River in Gary through natural resource damage litigation about the Midco I and II Superfund sites. Called the "Bongi property", this 102 ha (253 acre) parcel contains one of the highest biodiversity areas of vascular plants in the state and is part of the historic Chicago Lake Plain of dune and swale topography.
- The RAP process has initiated a RAP Rights of Way (ROW) Project to cooperate with ROW owners to manage their land in an ecologically sensitive manner. This project includes railroads, utilities and pipeline companies in a joint effort to reconnect portions of the biological corridors which once paralleled the lake shore.

RAP-Related Publications ▲

The following documents may be available from one of the Grand Calumet River AOC Contacts listed below.



Grand Calumet River

- The Sediment Cleanup and Restoration Alternatives Project, funded by IDEM and the U.S. Army Corps of Engineers, is currently available to the public.
- The Natural Resources Trustees have issued an assessment plan for public review. This plan supports the RAP process.
- A Historical Perspective on the Flora of the Grand Calumet River; What are Realistic Expectations for Restoration? Robin Scribailo, Purdue University North Central
- Distribution of Chinook Salmon (*Oncorhynchus tshawytscha*) in the Grand Calumet River and Indiana Harbor Canal, Lake County, Indiana - Joseph Exl, US Fish and Wildlife Service
- Toward a Holistic Ecological Approach to Restoring the Grand Calumet River Basin - Richard Whitman and Meredith B. Nevers, U.S. Geological Survey.
- Differentiating Human and Non-human E-coli Contamination by RAPD Analysis - Charles C. Tseng and Evert W.T. Ting, Purdue University-Calumet.
- Polyaromatic Hydrocarbon Analysis of A Sediment Sample From the West Branch of the Grand Calumet River - Kay Rowberg, Purdue University-Calumet.
- Status of Wetland Flora along the Grand Calumet River with a Regard to the Potential Impacts of Proposed Sediment Removal - Young Choi, Purdue University-Calumet.
- An Ecosystem Partnership in the Calumet basin in Illinois: A review with Questions - Janet I. Haplin and Mark Bouman, Chicago State University.

Community/Local RAP Group Involvement ▲

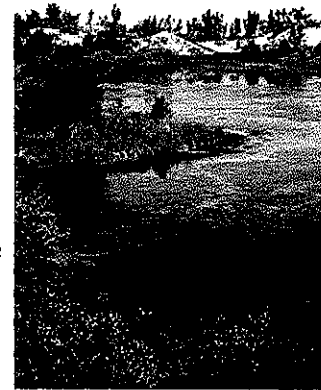
In 1991, IDEM opened a regional office in Gary to act as a liaison with local officials, concerned citizens, and industry, including the involvement of concerned citizens through the Citizen's Advisory for

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the Remediation of the Environment (CARE) Committee.

Volunteer Stewards Network

- The RAP's Stage Two Habitat Component calls for the development of a volunteer stewards network to restore natural areas of high biodiversity. The RAP process has fostered the development of the Friends of Gibson Woods, an independent volunteer stewardship organization, to help restore native dunes and oak savannas toward their presettlement condition, including the Bongli property and the Gibson Woods Nature Preserves.
- The Nature Conservancy, as part of its Southern Lake Michigan Conservation Initiative, is organizing a Calumet Stewards Network and will focus on the preservation and restoration of the natural areas of highest biodiversity in the Calumet Region.



Beaches and dunes at the Grand Calumet River

Partners and Stakeholders ▲ EXIT Disclaimer

- CARE (Citizens Advisory for the Remediation of the Environment) Committee
- East Chicago Waterway Management District
- Indiana Department of Natural Resources
- U.S. Army Corps of Engineers
- U.S. Department of the Interior
- U.S. Environmental Protection Agency
- U.S. EPA – Great Lakes National Program Office

Partners also include numerous local businesses, organizations, agencies, institutions, units of government and individuals.

Grand Calumet River AOC Contacts ▲**U.S. EPA RAP Liaison:**

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Fax: (312) 353-2018
Email: perrecone.john@epa.gov

State RAP Contact:

Dan Plath, RAP Coordinator
Indiana Department of Environmental Management Northwest Regional Office
8315 Virginia Street, Suite 1
Merrillville, IN 46410
Tel: (219) 757-0283
Fax: (219) 757-0267
Email: DPLATH@idem.IN.gov

Local RAP Group:

Citizens Advisory for the Remediation of the Environment (CARE) Committee